UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/566,530	01/05/2007	Rajendra Kumar	1386007US1AN	7360

27542 7590 10/10/2008

SAND & SEBOLT
AEGIS TOWER, SUITE 1100
4940 MUNSON STREET, NW
CANTON, OH 44718-3615

EXAMINER	
TRINH, TAN H	

ART UNIT	PAPER NUMBER
2618	

MAIL DATE	DELIVERY MODE
10/10/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/566,530	KUMAR, RAJENDRA	
	Examiner	Art Unit	
	TAN TRINH	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *33-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *33-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 January 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. PCT-IB04/51349.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *09-11-2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 09-11-2006, the information disclosure statement has been considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 33-36 and 38 are rejected under 35 U.S.C. 102(e) as being anticipated by Moriki (U.S. Pub. No. 2003/0148795).

Regarding claim 33, Moriki teaches a portable electronic device (see fig. 1) comprising: a host unit (2), including a display (1); and a keyboard module (3) selectively connected to the host unit (2) and including at least one group of keys (10 keys in 3), and the keyboard module (3) being moveable (slid-able) between at least two allowable positions with respect to the host unit (2) (see fig. 1A and 2A-B, page 2, sections [0023-0027 and 0035]), and a holding mechanism (guide grooves formed) to detachably hold (guide grooves) the keyboard module (3) to the host unit (2) (see fig. 1A-B and 2A-B, page 2, section [0023]).

Regarding claim 34, Moriki teaches a portable electronic device (see fig. 1) further comprising a position sensing mechanism (201-204 and 301) (see fig. 1A-B, 2A-B and 3, with position detector 205, page 2, sections [0025-028]), the position sensing mechanism (201-204) being mounted on at least one of the host unit (2) (see fig. 1A-B, page 2, sections [0025-0026]), the keyboard module (3), and the holding mechanism (guide grooves formed) and outputting a position signal to the host unit (2) corresponding to one of the at least two allowable positions such that the host unit (2) adapts a display (1) content of the display in response to the position signal (see page 2, sections [0023-0035]).

Regarding claim 35, Moriki teaches the position sensing mechanism (201-204 and 301) comprises an electrical connector (201-204) and at least one mating connector (301) provided between the host unit (2) and keyboard module (3), which carry power to operate the keyboard module (3) and carry input and output signals between the keyboard module (3) and the host unit (2) (see fig. 1A-B and 2A-B, page 2, sections [0025-0026 and [0034]).

Regarding claim 36, Moriki teaches the holding mechanism (guide grooves formed) releases the keyboard module (3) from the host unit (2) when the keyboard module (3) is attached thereto, and the device is subjected to an impact that may otherwise damage the device (see fig. 1A-B and 2A-B, page 2, section [0023]). In this case, it is composed of a main unit 2 and a keypad unit 3, which are coupled to be relatively slidable in longitudinal directions 4. More specifically, the main unit 2 has guide grooves formed on both longitudinal sides thereof. The keypad unit 3 is engaged with these guide grooves to longitudinally slide. So that the device

is subjected to an impact and the guide grooves formed is holding and guiding the device for protect from the device to an impact occurred.

Regarding claim 38, Moriki teaches the host unit (2) conforms to one of a hand-held form factor and a tablet form factor (see fig. 1A-B and 3, page 2, sections [0028-0030]). In this case, the host unit (2) is a mobile telephone that is hand-held form and host unit (2) is under control of the processor 206 for display information, stored and memory processing that is a tablet form factor.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 39-45 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriki (U.S. Pub. No. 2003/0148795) in view of Uusimmaki (U.S. Patent No. 7006077).

Regarding claim 39, Moriki teaches a portable electronic device (see fig. 1) comprising: a host unit (2), including a display (1); and a keyboard module (3) connected to the host unit (2) and including at least one group of keys (10 keys in 3), and the keyboard module (3) being moveable between at least two allowable positions with respect to the host unit (2) (see fig. 1A and 2A-B, page 2, sections [0023-0027 and 0035]), wherein a first allowable position of the at least two allowable positions results in the keyboard module (2) covering the display (1) (see fig.

1B, the keyboard module (2) is substantially covering the display (1) at sections (201-204) in first allowable position (see fig. 1B and page 2, section [0033]), and having a position sensing mechanism (201-204 and 301) comprising an electrical connector (201-204) mounted on the host unit (2) (see fig. 1A-B, page 2, sections [0025-0026]), or the holding mechanism (guide grooves formed) and at least one mating connector (301) mounted on the keyboard module (3), the electrical connector (201-204) and the at least one mating connector (301) engaging and disengaging with each other as the keyboard module (3) moves between the at least two allowable positions (see fig. 1A-B, page 2, sections [0025-0026]). But Moriki teaches the keyboard module (3) is substantially covering the display at sections (201-204) in first allowable position (see fig. 1B), and left the partial small display (101) area not substantially covering. Because this area is for only basic information for telephone communication such as destination number, battery indicator, electric field strength and the like may be displayed in the displaying area 101 (see page 2, section [0033]). Since Moriki teaches the keyboard module (3) is substantially covering the display (1) in sections (201-204) in first allowable position (see fig. 1B), that is obvious of the keyboard module is substantially covering the display.

Moreover, related art Uusimmaki also teaches the keyboard module (14) is substantially covering the display in most of the display (26) first allowable position (closed position) with only small part of the display 26 can be seen when the touch sensitive slide (14) is in closed position (see fig. 1a, col. 3, lines 60-67), that is obvious of the keyboard module is substantially covering the display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Moriki with Uusimmaki, in order to provide

keyboard module to cover most of the display for reducing damage to the display (see suggested by Uusimmaki on col. 3, lines 65-67).

Regarding claim 40, Moriki teaches a portable digital electronic device (see fig. 1A-B), the device comprising: a host unit (2), including a display (1); and a keyboard module (3) connected to the host unit (2) and including at least one group of keys (10 keys in 3), and the keyboard module (3) being moveable between at least two allowable positions with respect to the host unit (2) (see fig. 1A and 2A-B, page 2, sections [0023-0027 and 0035]), wherein a first allowable position of the at least two allowable positions results in the keyboard module (3) covering the display (see fig. 1B, the keyboard module (2) is substantially covering the display (1) at sections (201-204) in first allowable position (see fig. 1B and page 2, section [0033]), and wherein a second allowable position of the at least two allowable positions results in the display (1) being at least partially exposed (see fig. 2A-B), wherein the display content on the display is adapted to the exposed portion of the display (see fig. 2A-B, page 2, section [0034]), and having a holding mechanism (guide grooves formed) to securely and detachably hold the keyboard module (3) to the host unit (2) in one of the at least two allowable positions (fig. 2A-B and page 2, sections [0023-0027]). But Moriki teaches the keyboard module (3) is substantially covering the display at sections (201-204) in first allowable position (see fig. 1B), and left the partial small display (101) area not substantially covering. Because this area is for only basic information for telephone communication such as destination number, battery indicator, electric field strength and the like may be displayed in the displaying area 101 (see page 2, section [0033]). Since Moriki teaches the keyboard module (3) is substantially covering the display (1) in sections (201-

204) in first allowable position (see fig. 1B), that is obvious of the keyboard module is substantially covering the display.

Moreover, related art Uusimmaki also teaches the keyboard module (14) is substantially covering the display in most of the display (26) first allowable position (closed position) with only small part of the display 26 can be seen when the touch sensitive slide (14) is in closed position (see fig. 1a, col. 3, lines 60-67), that is obvious of the keyboard module is substantially covering the display.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Moriki with Uusimmaki, in order to provide keyboard module to cover most of the display for reducing damage to the display (see suggested by Uusimmaki on col. 3, lines 65-67).

Regarding claim 41, Moriki teaches a portable digital electronic device (see fig. 1A-B) further comprising a position sensing mechanism (201-204 and 301), the position sensing mechanism (201-204 and 301) being mounted on at least one of the host unit (2), the keyboard module (3), and outputting a position signal to the host unit (2) corresponding to one of the at least two allowable positions such that the host unit (2) adapts a display (1) content of the display in response to the position signal (see fig. 2A-B, page 2, section [0034]) .

Regarding claim 42, Moriki teaches the position sensing mechanism (201-204 and 301) comprises an electrical connector (201-204 and 301) mounted on a front side of the host unit (2) and at least one mating connector (301) mounted on a back side of the keyboard module (2) and

facing the front side of the host unit (2) (see fig. 1B and 2B), the electrical connector (201-204 and 301) and the at least one mating connector (301) engaging and disengaging with each other as the keyboard module (3) moves between the at least two allowable positions (see fig. 1A-B and 2A-B, page 2, sections [0023-0028 and [0034]).

Regarding claim 43, Moriki teaches a number of the at least one mating connector (201-204) is three and wherein each of the three mating connectors are positioned on the keyboard module (3) to engage with the electrical connector (301) at the at least two allowable positions including a first allowable position (201) wherein the keyboard module (3) is positioned such that substantially all of the display (1 sections 201-204) is covered (see fig. 1B and 2B), a second allowable position (202-203) wherein the keyboard module (3) is positioned such that a predefined portion of the display is exposed (see fig. 2A-B, when the positioned in the (202 or 203), and a third allowable position (204) wherein the keyboard module is positioned such that substantially all of the display is exposed (see fig. 2B with the positioned on (204), (see fig. 2A-B and page 2, sections [000025-0031]).

Regarding claim 44, Moriki teaches the electrical connector (201-204 and 301) and the at least one mating connector (301) carry power to operate the keyboard module (3) and carry input and output signals between the keyboard module (3) and the host unit (2) (see fig. 1A-B and 2A-B, page 2, sections [0025-0026 and [0034]).

Regarding claim 45, Moriki teaches the holding mechanism (guide grooves formed) releases the keyboard module (3) from the host unit (2) when the device is subjected to an impact that may otherwise damage the device (see fig. 1A-B and 2A-B, page 2, section [0023]). In this case, it is composed of a main unit 2 and a keypad unit 3, which are coupled to be relatively slidable in longitudinal directions 4. More specifically, the main unit 2 has guide grooves formed on both longitudinal sides thereof. The keypad unit 3 is engaged with these guide grooves to longitudinally slide. So that the device is subjected to an impact and the guide grooves formed is holding and guiding the device for protect from the device to an impact occurred.

Regarding claim 47, Moriki teaches the host unit (2) conforms to one of a hand-held form factor and a tablet form factor (see fig. 1A-B and 3, page 2, sections [0028-0030]). In this case, the host unit (2) is a mobile telephone that is hand-held form and host unit (2) is under control of the processor 206 for display information, stored and memory processing that is a tablet form factor.

6. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moriki (U.S. Pub. No. 2003/0148795) in view of Mark (U.S. Pub. No. 2002/0082442).

Regarding claim 37, Moriki teaches the keyboard module (3) input/output link to communicate with the host unit (2) (see fig. 1A-B and 2A-B). But Moriki does not mention the keyboard module includes a power source and a wireless input/output link to communicate with the host unit.

However, Mark the keyboard module (11) includes a power source (16) and a wireless input/output link (low power RF link) to communicate with the host unit (20) (see fig. 2, and page 2, section [0019]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Moriki with Mark, in order to provide user with detachable keyboard from the mobile station and may have a full set of conventional keypad for operate with the remote wireless keypad module (see suggested by mark on page 3, sections [0028-0029]).

7. Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moriki (U.S. Pub. No. 2003/0148795) in view of Uusimmaki (U.S. Patent No. 7006077) further in view of Mark (U.S. Pub. No. 2002/0082442).

Regarding claim 37, Moriki teaches the keyboard module (3) input/output link to communicate with the host unit (2) (see fig. 1A-B and 2A-B). But Moriki or Uusimmaki does not mention the keyboard module includes a power source and a wireless input/output link to communicate with the host unit.

However, Mark the keyboard module (11) includes a power source (16) and a wireless input/output link (low power RF link) to communicate with the host unit (20) (see fig. 2, and page 2, section [0019]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above combination of the teaching of Moriki and Uusimmaki with Mark, in order to provide user with detachable keyboard from the mobile station and may have a

full set of conventional keypad for operate with the remote wireless keypad module (see suggested by mark on page 3, sections [0028-0029]).

Conclusion

8. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(571) 273-8300, (for Technology Center 2600 only)

*Hand-delivered responses should be brought to the Customer Service Window (now located at the **Randolph Building, 401 Dulany Street, Alexandria, VA 22314).***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh
Division 2618
October 8, 2008

/TAN TRINH/
Primary Examiner, Art Unit 2618
10-08-2008